Assuring Proficiency as well as Compliance

Hands-on Training Solutions
Does training make mariners safer?
Does Confidence equal Proficiency?

I got this!
Will this put out a fire?
Does compliance keep you safe?
In 1912, British passenger vessels over 10,000 tons were required to carry 16 Lifeboats.

The Titanic had 16 Lifeboats.
When it hit an iceberg and sank, it turned out 16 lifeboats was not enough.

The Titanic complied with the law, but 1500 people died anyway.
On September 1, 1951, the fishing vessel *Pelican* had one lifejacket per passenger, as required by law.

- No legal limit on the number of passengers
- No requirement for life rafts
- When the 42’ boat capsized off Montauk Point, it was in compliance with the law
- 45 people died anyway
Things aren’t always what they seem....
Appearance does not always assure Capability
Compliance does not always equal Proficiency
What are the Subchapter M training requirements?

- §140.420 Emergency drills and instruction
- §142.245 Requirements for training crews to respond to fires
- §140.515 Training Requirements (Occupational Health and Safety)
What are the training **Objectives** of Subchapter M?

- Mariners come home safe
What are the training **Objectives** of Subchapter M?

- Prevent damage to equipment, infrastructure and the environment
Your company’s Subchapter M Training requirements are specified in your Towing Safety Management System, or Health and Safety Plan.
Is your TSMS or Health and Safety Plan designed to help:

▶ Mariners come home safe?
▶ Prevent damage to equipment, infrastructure and the environment?
▶ Or is it just designed to get you a COI?
Does your **TSMS** or **Health and Safety Plan** help:

- Is your plan based upon achieving Compliance?
  
  Or
  
- Assuring Capability?
Are you trying to get over the bar?
Or wiggle under it?
Helping mariners come home safe and preventing damage to equipment, infrastructure and the environment requires 3 things:
Knowledge and Understanding are the foundation
Proficiency is what you build on the foundation
“This is an airplane cockpit”
“These are the throttles”
I’m a genius

Proficiency?
“That’s a fire extinguisher”
“It can extinguish Class A, B or C fires.”
Proficiency
If all you have is a foundation....
You may get wet when it rains....
If the foundation is weak...
Proficiency may be lacking...
Little Jimmy needs to learn to tie his own shoes...
How does Jimmy achieve Proficiency?

- By thinking about it?
How does Jimmy achieve Proficiency?

- Reading Books?
How does Jimmy achieve Proficiency?

- Watching other people?
Thinking, reading and watching provide knowledge and understanding, but
The ONLY way Jimmy can become Proficient at tying his shoes...

- Is to practice tying his shoes!
How good were you the first time you tried...

- Riding a bicycle
How good were you the first time you tried...

- Using a computer
How good were you the first time you tried...

- Operating a tugboat
How good were you the first time you tried...

- Managing an emergency
“I’ve never actually done this operation before.”
Sometimes, it IS your first rodeo.
46 CFR§140.420 Emergency drills and instruction.

(a) Master’s responsibilities. The master of a towing vessel must ensure that drills are conducted and instructions are given to ensure that all crewmembers are capable of performing the duties expected of them during emergencies.
The master of a towing vessel must ensure that drills are conducted and instructions are given to ensure that all crewmembers are capable of performing the duties expected of them during emergencies.

Abandoning the vessel
The master of a towing vessel must ensure that drills are conducted and instructions are given to ensure that all crewmembers are capable of performing the duties expected of them during emergencies.

Recovering persons from the water
The master of a towing vessel must ensure that drills are conducted and instructions are given to ensure that all crewmembers are capable of performing the duties expected of them during emergencies.

Responding to onboard fires...
The master of a towing vessel must ensure that drills are conducted and instructions are given to ensure that all crewmembers are capable of performing the duties expected of them during emergencies.

...and flooding
The master of a towing vessel must ensure that drills are conducted and instructions are given to ensure that all crewmembers are capable of performing the duties expected of them during emergencies.

Responding to other threats to life, property, or the environment
That’s a huge responsibility!
Crewmembers must be proficient in emergency skills

- If they are not, it’s the Master’s fault
How do crews become Proficient at emergency skills?
Magic?
Training!
Training!

- Knowledge
- Understanding
How do you become Proficient at emergency skills?

- Hands-on practice
- Demonstrations of competency
How do you become Proficient at emergency skills?

- Hands-on training
- Demonstrations of competency
How do you become Proficient at emergency skills?

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- Hands-on training
- Demonstrations of competency
How do you become Proficient at emergency skills?

- Ongoing Assessments (Emergency Drills)
Why is Proficiency so important?
Compliance keeps you on the right side of the law

Proficiency puts the fire out and keeps you alive
Compliance gets you the COI

Proficiency helps you come home safe
Compliance makes sure the proper equipment is onboard and functional.

Proficiency makes sure people know how to use it.
Can MITAGS help?
M-Safe
Towing Vessel Safety Training
- Not Coast Guard-approved
  - 1 or 2-day program
  - Only includes the topics the customer needs
# 1-DAY

## M-SAFE Towing Vessel Safety Training

### 1-DAY COURSE OUTLINE

<table>
<thead>
<tr>
<th>Time</th>
<th>Subject</th>
<th>Objective</th>
<th>M-SAFE Workbook assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800</td>
<td>Introduction</td>
<td>Identify hazards surrounding a towing vessel</td>
<td>Workbook assignment</td>
</tr>
<tr>
<td>0900</td>
<td>Threats to Life, Property, or the Environment</td>
<td>List hazards associated with towing vessels</td>
<td>Workbook assignment</td>
</tr>
<tr>
<td>0930</td>
<td>Health and Safety Plan</td>
<td>Complete applicable work and health regulations</td>
<td>Workbook assignment</td>
</tr>
<tr>
<td>0930</td>
<td>High Management and Controls</td>
<td>Describe the &quot;hierarchy of control&quot;</td>
<td>Workbook assignment</td>
</tr>
<tr>
<td>1030</td>
<td>Safety of Equipment</td>
<td>Complete the &quot;hierarchy of control&quot;</td>
<td>Workbook assignment</td>
</tr>
<tr>
<td>1130</td>
<td>Hazards Communications</td>
<td>Identify the proper procedure when working with machinery</td>
<td>Workbook assignment</td>
</tr>
<tr>
<td>1130</td>
<td>Confined Space Awareness</td>
<td>Describe the precautions associated with confined spaces</td>
<td>Workbook assignment</td>
</tr>
<tr>
<td>1230</td>
<td>Lockout/Tagout Procedures</td>
<td>Describe the measures taken for securing hazardous energy</td>
<td>Workbook assignment</td>
</tr>
</tbody>
</table>

### TIME | OBJECTIVE | M-SAFE WORKBOOK ASSIGNMENT
| 1200-1330 | LUNCH | |
| 1330-1400 | Fire Prevention and Response | State best practices to prevent fire | Workbook assignment |
| 1330-1400 | Flood Prevention and Response | Demonstrate the techniques for flooding prevention | Workbook assignment |
| 1430-1520 | Abandoning the Vessel | Describe the techniques for safety | Workbook assignment |
| 1500-1630 | Practical Exercises | Practice the techniques | Workbook assignment |
| 1630-1700 | Written Exam | Successfully complete a written exam | Workbook assignment |
M-Safe Towing Vessel Safety Training

2-DAY

<table>
<thead>
<tr>
<th>Time</th>
<th>Day 1</th>
<th>Day 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800-0830</td>
<td>Introduction and Orientation</td>
<td>Threats to Life, Property, or the Environment</td>
</tr>
<tr>
<td>0830-0900</td>
<td>Health and Safety Plan</td>
<td>Safety Orientations</td>
</tr>
<tr>
<td>0900-0930</td>
<td>Reporting Unsafe Conditions</td>
<td>Safety Meetings</td>
</tr>
<tr>
<td>0930-1000</td>
<td>Hazard and Risk Assessment and Mitigation</td>
<td>Oil Spills</td>
</tr>
<tr>
<td>1000-1030</td>
<td>Proper Selection of PPE</td>
<td>Towing Emergencies</td>
</tr>
<tr>
<td>1030-1100</td>
<td></td>
<td>Fire</td>
</tr>
<tr>
<td>1100-1130</td>
<td>Safe use of Equipment</td>
<td>Flooding</td>
</tr>
<tr>
<td>1130-1200</td>
<td></td>
<td>Abandoning the Vessel</td>
</tr>
<tr>
<td>1200-1300</td>
<td>Lunch Break</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>1300-1330</td>
<td>Hazardous Communication and Cargo Knowledge</td>
<td>Recovering Persons from the Water</td>
</tr>
<tr>
<td>1330-1400</td>
<td>Safe Use of Hazardous Materials and Chemicals</td>
<td>Emergency Drills</td>
</tr>
<tr>
<td>1400-1430</td>
<td>Confined Space Entry</td>
<td>Practical Exercises</td>
</tr>
<tr>
<td>1430-1500</td>
<td>Respiratory Protection</td>
<td></td>
</tr>
<tr>
<td>1500-1530</td>
<td>Lockout/Tagout Procedures</td>
<td></td>
</tr>
<tr>
<td>1530-1600</td>
<td></td>
<td>Written Exam</td>
</tr>
<tr>
<td>1600-1630</td>
<td>Training for Persons Other Than Crew</td>
<td>Review, Critique, Issue Certificate</td>
</tr>
<tr>
<td>1630-1700</td>
<td>Practical Assessment</td>
<td></td>
</tr>
</tbody>
</table>
Includes custom student guide based on company operations and TSMS or HSP
Hands-on activities to build proficiency
Follow-on workbook to document assessments and proficiencies
Follow-on workbook to document assessments and proficiencies
Offered at MITAGS or Customer’s location
Can be taught by MITAGS or Licensed to Customer to teach in-house
Company Seminars and Workshops

How to Run and Assess Emergency Drills

### Emergency Drill Template

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underway</td>
<td>Fire</td>
<td>Abandon Ship</td>
</tr>
<tr>
<td>Pier Side</td>
<td>Rescue</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Security</td>
<td>Lost Barge</td>
</tr>
<tr>
<td></td>
<td>Oil Spill</td>
<td>Medical</td>
</tr>
</tbody>
</table>

**Topic**

- **Nature of the situation**
- **Evaluation Criteria**
  - What determines success or failure?
  - What competencies are being measured?

- **Scenario**
  - Describe the situation which caused the emergency. How did the fire break out? How did a person fall over the side, and what sort of condition are they in? Why is there flooding in the engine room?

- **Substitutions**
  - What helps the crew visualize the situation?
  - You wouldn’t really set a boat on fire for a fire drill, but how would you simulate a fire?
  - You won’t really launch a life raft, but how far will you go in your simulation? How would you simulate a person in the water, or a medical emergency?

- **Initiation**
  - How does the drill begin? Will a random crewmember “discover” something such as a sign disclosing the emergency, such as “This is a drill - heavy smoke coming from this stateroom - contact bridge when you find this,” or “Fire! Just cut his arm to the bone - what are you going to do?” or “Larry just fell over the side while we were at the dock - what are you going to do?”
## Company Seminars and Workshops

- **How to Run and Assess Emergency Drills**

### Fire Drill Evaluation

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Initial Actions by Discoverer**
- Promptly sounded alarm?
- Provided accurate information?
- Search for trapped personnel?
- Secured power?
- Secured ventilation?
- Took effective initial action to mitigate situation?

**Initial Actions by Watch Officer**
- Promptly sounded alarm?
- Promptly made distress call?
- Referenced Station Bill?

**Initial Response by Crew**
- Recognized emergency signal?
- Mustered at designated location?
- Accounted for ALL personnel?
- Acquired emergency equipment en route? (Portable extinguishers, Immersion Suits)
- Properly attired? (Battle dress for fire, warm clothing for abandon ship)
- Took proper route to muster location? (Did not transit smoke-filled passages, transited externally)

**Response to Scenario**
- Scene Leader in charge?
- Scene Leader kept wheelhouse informed?
- Team well-coordinated?
Company Seminars and Workshops

Damage Control
Company Seminars and Workshops

Man Overboard Recovery
Company Seminars and Workshops

Confined Space Awareness/Rescue
Company Seminars and Workshops

HAZCOM/HAZWOPER
Company Seminars and Workshops

Oil Spill Response
Company Seminars and Workshops

First Aid and CPR
Company Seminars and Workshops

Other Emergency Response and Health and Safety topics
In Summary
Does Training make mariners safer?

Not if it puts them to sleep!

Not if they don’t understand it!
Training make mariners safer when it combines:

- Knowledge,
- Understanding, and
- Proficiency
Does **Confidence** equal **Proficiency**?

I got this!

Bad training (or lack of training) can kill you!
Will this put out a fire?

Only if used by a person who has been trained to properly use it
A training certificate is not a St. Christopher Medal

- Good training = Good results
- Poor training = Disappointment
What do we need to come home safe?
Does Training equal Proficiency?

- It depends upon the training
- It depends upon the assessments
Does Training equal Proficiency?

- If training only provides knowledge and understanding, what is the point?
- If there is no roadmap to proficiency, why bother?
- It’s like going to a fancy restaurant and leaving your wallet at home
Remember...You don’t get what you Expect.

- You get what you Assess
- People don’t “rise to the occasion;” they rise to their level of proficiency
Without Proficiency you are a helpless bystander at best, and a victim/casualty/statistic/headline at worst.
Don’t let this happen to you!
Look beyond compliance.
Insist on a quality training program.
Insist on Proficiency.
Thank You

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